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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/061,790   | 02/01/2002  | Hiroaki Ando         | KON-1713            | 2227             |
| 20311  | 7590        | 03/16/2004           | EXAMINER            |                  |
| MUSERLIAN AND LUCAS AND MERCANTI, LLP<br>475 PARK AVENUE SOUTH<br>NEW YORK, NY 10016 |             |                      | SHOSHO, CALLIE E    |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 1714                |                  |

DATE MAILED: 03/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/061,790

Applicant(s)

ANDO ET AL.

Examiner

Callie E. Shosho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 3,6,7,9 and 11-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-7 is/are allowed.
- 6) ☒ Claim(s) 3,9 and 11-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

1. All outstanding rejections except for those described below are overcome by applicants' amendment filed 12/9/03.

The following rejection is non-final in light of the new grounds of rejection set forth in paragraphs 3-4 below.

**Claim Rejections - 35 USC § 102**

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 3 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Komatsu et al. (U.S. 6,379,443) taken in view of the evidence in either *Hawley's Condensed Chemical Dictionary* or *Polymer Science Dictionary*.

Komatsu et al. disclose water-based ink jet ink comprising colored resin wherein the resin is polyvinyl acetal and the colorant is dye. There is also disclosed a method wherein the colored resin is added to water to form an ink (col.2, lines 1-2 and col.7, lines 43-47, 57, and 60-61).

It is noted that the present claims require polyvinyl butyral while Komatsu et al. disclose polyvinyl acetal. However, it is well known, as evidenced by *Hawley's Condensed Chemical Dictionary* (page 907) and *Polymer Science Dictionary* (pages 460 and 461), that the term polyvinyl acetal encompasses not only polyvinyl acetal but also polyvinyl butyral. Thus, it is clear that Komatsu et al. do in fact disclose polyvinyl butyral as required in the present claims.

In light of the above, it is clear that Komatsu et al. anticipate the present claims.

4. Claims 3 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Fujino et al. (U.S. 5,623,296) taken in view of the evidence in either *Hawley's Condensed Chemical Dictionary* or *Polymer Science Dictionary*.

Fujino et al. disclose water-based ink comprising colored thermoplastic resin wherein the resin is polyvinyl acetal and the colorant is dye. There is also disclosed a method wherein the colored resin is added to water to form an ink (col.11, lines 40-49 and 55-60, col.14, lines 16-17, col.15, lines 5-13, and col.17, lines 60-65).

It is noted that the present claims require polyvinyl butyral while Fujino et al. disclose polyvinyl acetal. However, it is well known, as evidenced by *Hawley's Condensed Chemical Dictionary* (page 907) and *Polymer Science Dictionary* (pages 460 and 461), that the term polyvinyl acetal encompasses not only polyvinyl acetal but also polyvinyl butyral. Thus, it is clear that Fujino et al. do in fact disclose polyvinyl butyral as required in the present claims.

In light of the above, it is clear that Fujino et al. anticipate the present claims.

5. Claims 11-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Palmer (U.S. 2002/0128348).

Palmer disclose water-based ink comprising core-shell polymer wherein the core comprises binder such as polyvinyl butyral and the shell comprises dye. Palmer also disclose several prior art core-shell structures wherein the core comprises both the dye and the binder. Palmer also disclose a method wherein the core-shell particles are used in water-based ink jet ink as well as a method of making the core-shell structure wherein shell is formed on the core by

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polymerizing shell materials in the presence of the formed core (paragraphs 2, 4, 8, 22, 30, 40 (lines 1-3 and 3<sup>rd</sup> last line), 44 (line 1), and 45).

In light of the above, it is clear that Palmer anticipate the present claims.

### **Response to Arguments**

6. Applicants' arguments filed 12/9/03 have been fully considered but they are not persuasive.

Specifically, applicants argue that Palmer is no longer applicable against the present claims given that applicants have perfected their priority date by submitting, on 12/9/03, the English translation of the priority document, which was previously submitted on 2/1/02.

However, it is the examiner's position that present claims 11-13, against which Palmer is used, are not entitled to the priority date of 2/16/01 and that applicant has not established effective filing date of 2/16/01 for these claims given that claims 11-13 are drawn to method for preparing water-based ink wherein the method comprises a step of dispersing colored particles which comprise a dye and a polymer having an acetal group into aqueous medium wherein the method further comprises adding polymerizable monomer and polymerizable initiator so as to form shell phase on each of the colored particles while the foreign priority document is silent with respect to such method. That is, while the foreign priority document does disclose method for making colored particles, there does not appear to be any disclosure in the foreign priority document of method comprising adding polymerizable monomer and polymerizable initiator so as to form shell phase on each of the colored particles. Thus, while applicants have established

effective filing date of 2/16/01 for claims 3, 6-7, and 9, this filing date has not been established for the method as set forth in claims 11-13.

Thus, it is the examiner's position that applicants are not entitled to the benefit of the foreign priority date with respect to the disclosures set forth in present claims 11-13 and thus, Palmer remains a relevant reference against these claims.

With respect to the rejections of claims 3 and 9 by either Komatsu et al. or Fujino et al., it is noted that in the previous office action mailed 9/9/03, these claims were not rejected by either of these references. However, upon reconsideration, it is noted that in the disclosure of polyvinyl acetal in either Komatsu et al. or Fujino et al. clearly encompasses polyvinyl butyral as presently claimed. Evidence to support this position is found in *Hawley's Condensed Chemical Dictionary* (page 907) or *Polymer Science Dictionary* (pages 460 and 461), which state that the recitation of polyvinyl acetal encompasses not only polyvinyl acetal but also polyvinyl butyral. Thus, it is clear that Komatsu et al. and Fujino et al. each do in fact disclose polyvinyl butyral as required in the present claims.

**Allowable Subject Matter**

7. Claims 6-7 are allowable over the "closest" prior art given that there is no disclosure in either Komatsu et al. (U.S. 6,379,443) or Fujino et al. (U.S. 5,623,296) of water-based ink comprising colored particles which comprise a dye and a polymer having an acetal group wherein the colored particles have a core-shell structure composed of core-phase and shell phase as required in present claims 6-7.

Palmer (U.S. 2002/0128348) is not applicable against claims 6-7 given that the filing date of Palmer lies between the filing date and the priority date of the present application as seen below:

Application No. 10/061,790 *priority date* – 2/16/01

Palmer *filing date* – 3/7/01

Application No. 10/061,790 *filing date* – 2/1/02

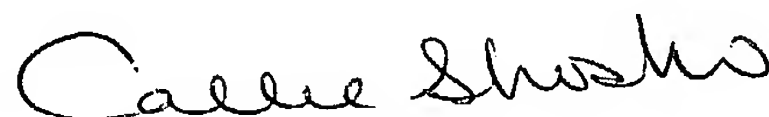
Under MPEP 706.02(b), rejections based on 35 U.S.C. 102(e) can be overcome by perfecting the filing date of the priority document. Applicant's submission of certified priority document on 2/1/02 and its English language translation on 12/9/03 results in the perfection of the foreign priority filing date for claims 6-7. Thus, Palmer is no longer applicable against these claims.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Callie E. Shosho  
Primary Examiner  
Art Unit 1714

CS

3/4/04